

Notice No.2

for the

Code for Lifting Appliances in a Marine Environment, July 2021

The status of this Rule set is amended as shown and is now to be read in conjunction with this and prior Notices. Any corrigenda included in the Notice are effective immediately.
Please note for the corrigenda items paragraphs, Tables and Figures are not shown in their entirety.

Issue date: November 2021

Amendments to	Effective date	IACS/IMO implementation (if applicable)
Chapter 2, Section 2	Corrigendum	NA
Chapter 4, Sections 2 & 7	Corrigenda	NA
Chapter 8, Section 6	Corrigenda	NA
Chapter 12, Section 3	Corrigenda	NA

Chapter 2 Derrick Systems

■ Section 2 Design criteria

2.4 Friction allowance

2.4.3 As an alternative, the coefficients of rope tensions may be determined as follows:

$$P_{\text{lowering}}(\mu, i, j) = \frac{1}{\sum_{k=0}^{i-1} (1+\mu)^k} \frac{1}{(1+\mu)^{i-1}} \frac{1}{(1+\mu)^{j-1}} \quad \text{if } j \neq 0$$

$$= \frac{1}{\sum_{k=0}^{i-1} (1+\mu)^k} \quad \text{otherwise}$$

$$P_{\text{lowering}}(\mu, i, j) = \frac{1}{\sum_{k=0}^{i-1} \frac{1}{(1+\mu)^k}} \frac{1}{(1+\mu)^{i-1}} \frac{1}{(1+\mu)^{j-1}} \quad \text{if } j \neq 0$$

$$= \frac{1}{\sum_{k=0}^{i-1} \frac{1}{(1+\mu)^k}} \quad \text{otherwise}$$

Chapter 4 Cranes and Submersible Lifting Appliances

■ Section 2 Shipboard cranes

2.17 Allowable stress – Elastic failure

2.17.5 When the actual yield to ultimate tensile ratio of the material is greater than 0,94, peak stresses beyond the nominal allowable stresses, (see [Ch 4, 2.17 Allowable stress – Elastic failure 2.17.1](#) to [Ch 4, 2.17 Allowable stress – Elastic failure 2.17.4](#), and [Ch 4, 2.17 Allowable stress – Elastic failure 2.17.6](#) to [Ch 4, 2.17 Allowable stress – Elastic failure 2.17.8](#)) shall be limited to the higher allowable stresses as defined in [Ch 4, 2.17 Allowable stress – Elastic failure 2.17.9](#). Higher peak stresses beyond such a limit will be specially considered, taking into account the actual yield to ultimate tensile strength ratio.

2.17.7 For components subjected to combined stresses the following allowable stress criteria are to be used:

(a) $\sigma_{xx} \leq \sigma_a$

(b) $\sigma_{yy} \leq \sigma_a$

(c) $\tau_o \leq \tau_a$

(d) $\sigma_e = \sqrt{\sigma_{xx}^2 + \sigma_{yy}^2 - \sigma_{xx}\sigma_{yy} + 3\tau_o^2} \leq 1,1\sigma_a$

where

σ_{xx} = applied stress in \times direction

σ_{yy} = applied stress in y direction

τ_o = applied shear stress-

■ Section 7 Launch and recovery appliances for manned small watercraft

7.8 Risk assessment

7.8.1 In case it is intended to deviate from the requirements as stipulated in this Section, it is required to prepare a risk-based justification in line with LR's [ShipRight, Design and Construction, Additional Design Procedures, Risk Based Designs \(RBD\)](#) [ShipRight Procedure for the Risk Based Certification \(RBC\)](#). The RBD RBC process requires the manufacturer to carry out a suitable and sufficient risk assessment based on own information and experience and information received from the Owners and/or Operators.

Chapter 8

Fittings, Loose Gear and Ropes

■ Section 6

Steel wire ropes

6.2 Steel wire for ropes

Table 8.6.1 Tensile strength grades of wires Range of wire tensile strength grades, N/mm²

Nominal rope grade	Range of wire tensile strength, N/mm ²
2160	1960 to 2160 2360

Chapter 12

Testing, Marking and Surveys

■ Section 3

Survey requirements

3.2 Initial Survey of new installations

3.2.4 Non-Destructive Examination (NDE) is to be carried out by suitably qualified operators Operators to the satisfaction of the Surveyor. The minimum requirements for NDE are given in [Table 12.3.1 Minimum requirements for NDE](#), but this may be extended at the discretion of the Surveyor. For the Steels steels shown in [Table 12.3.2 Cooling times prior to Non-Destructive Examination](#), the following cooling times are to be observed prior to the application of non-destructive examination NDE to completed welding.

Table 12.3.2 Cooling times prior to non-destructive examination Non-Destructive Examination

Type of steel	Cooling time prior to applying NDE (after all welds have reached ambient temperature and after any applicable post-weld post-weld heat treatment)
Specified Yield yield strength < 420 N/mm ² and CE ≤ 0,41	On welded structure reaching ambient temperature
420 N/mm ² ≤ Specified Yield yield strength ≤ 690 N/mm ²	Not before 48 hours after completion of welding
Specified Yield yield strength > 690 N/mm ²	Not before 72 hours after completion of welding
<p>Note 1. At the discretion of the Surveyor, the 72 hour interval may be reduced to 48 hours for radiographic or ultrasonic inspection, provided there is no indication of delayed cracking, and a complete visual and random magnetic particle or penetrant inspection to the satisfaction of the Surveyor is conducted 72 hours after welds have been completed and cooled to ambient temperature.</p> <p>Note 2. Regardless of yield strength, consideration is to be given to requiring a delayed inspection where evidence of delayed cracking has been observed in production welds.</p> <p>Note 3. At the discretion of the Surveyor, a longer interval and/or additional random inspection at a later period may be required, for example, in case of high thickness welds.</p>	

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Published by Lloyd's Register Group Limited
Registered office (Reg. no. 08126909)
71 Fenchurch Street, London, EC3M 4BS
United Kingdom

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